CLAIMS

1. A diagnostic device comprising a test surface and a means for inducing a pressure differential on a sample to direct the sample to a test surface and then clear the sample or a significant portion of the sample from the test surface so that the test surface can be analyzed.

2. The diagnostic device of Claim 1 wherein the means for inducing a pressure differential on a sample to direct the sample to a test surface and then clear the sample or a significant portion of the sample from the test surface further directs the sample past the test surface to a chamber or other means for containing the sample.

3. The diagnostic device of Claim 1 wherein the test surface is a diffraction-based test surface.

4. The diagnostic device of Claim 3 wherein the diffraction-based test surface is removable from the diagnostic device.

5. The diagnostic device of Claim 1 wherein the means for inducing a pressure differential on a sample to direct the sample to a test surface directs the sample by inducing a negative pressure differential on the sample.

6. The diagnostic device of Claim 5 wherein the means for inducing a pressure differential on a sample to direct the sample to a test surface comprises a piston.

7. The diagnostic device of Claim 6 wherein the means for inducing a pressure differential on a sample to direct the sample to a test surface comprises a syringe.

8. The diagnostic device of Claim 1 wherein the means for inducing a pressure differential on a sample to direct the sample to a test surface comprises a chamber having a volume sufficient to contain the entire sample.

9. The diagnostic device of Claim 1 wherein the means for inducing a pressure differential on a sample to direct the sample to a test surface comprises a ridge, a detent or another means of informing a user of the device that a particular position is reached.

10. The diagnostic device of Claim 1 further comprising a means for separating one or more components from a sample.

11. The diagnostic device of Claim 1 further comprising a means for diluting a sample.

12. The diagnostic device of Claim 3 further comprising diffraction-enhancing elements.

13. A disposable diagnostic device comprising

an opening for receiving a sample,

a test surface printed with a binder for detecting an analyte and in fluid communication with the opening for receiving a sample, and

a means for inducing a pressure differential on the sample to direct the sample from the opening for receiving a sample to the test surface and then clear the sample or a significant portion of the sample from the test surface so that the test surface can be analyzed.

14. The disposable diagnostic device of Claim 13 wherein the means for inducing a pressure differential on the sample to direct the sample from the opening for receiving a sample to the test surface also further directs the sample past the test surface and removes excess sample from the test surface.

15. The disposable diagnostic device of Claim 13 wherein test surface is disposed on a removable test strip.

16. The disposable diagnostic device of Claim 13 wherein the means for inducing a pressure differential on the sample to direct the sample from the opening for receiving a sample to the test surface directs the sample by inducing a negative pressure differential on the sample.

17. The disposable diagnostic device of Claim 16 wherein the means for inducing a pressure differential on the sample to direct the sample from the opening for receiving a sample to the test surface comprises a plunger.

18. The disposable diagnostic device of Claim 13 further comprising a means for separating one or more components from a sample.

19. The disposable diagnostic device of Claim 18 wherein the means for separating one or more components from a sample comprises a filter material, a precipitating agent or cell lysing agents.

20. The disposable diagnostic device of Claim 13 further comprising a means for diluting a sample.

21. The disposable diagnostic device of Claim 13 further comprising diffraction-enhancing elements.

22. A disposable diagnostic device comprising:

a housing, the housing comprising an opening for receiving a sample, a recess, and a channel connecting the opening to the recess,

a test strip removably attached to the housing and in fluid communication with the recess and a binder printed in a defined pattern on a surface of the test strip, wherein the test strip and the recess form a chamber over the binder,

and a means for inducing a pressure differential on a sample to direct the sample to the test surface.

23. The disposable diagnostic device of Claim 22 wherein the means for inducing a pressure differential comprises a piston or a plunger.

24. The disposable diagnostic device of Claim 23 wherein the means for inducing a pressure differential on a sample to direct the sample to the test surface comprises a syringe.

25. The disposable diagnostic device of Claim 22 further comprising a means for separating one or more components from a sample.

26. The disposable diagnostic device of Claim 22 further comprising a means for diluting a sample.

27. The diagnostic device of Claim 22 further comprising for diffraction-enhancing elements.

28. The disposable diagnostic device of Claim 22 further comprising indicia to assist a user in operating the means for inducing a pressure differential on a sample to direct the sample to the test surface.

29. The disposable diagnostic device of Claim 22 further comprising a second binder printed onto a portion of the surface of the test strip.

30. The disposable diagnostic device of Claim 22, wherein the disposable device further comprises a second analyte-specific receptor for a second analyte printed in a pattern onto at least a second portion of the surface of the test strip and the means for inducing a pressure differential on a sample to direct the sample to the test surface directs at least a portion of the sample to the second portion of the film.

31. The disposable diagnostic device of Claim 22 wherein the device comprises a capillary.

32. The diagnostic device of Claim 22 wherein the channel directs the sample from the opening toward the test surface at least in part by capillary forces or capillary action.

33. The disposable diagnostic device of Claim 32 wherein the channel comprises a capillary tube.

34. The disposable device of Claim 32, wherein the channel comprises a material or a structure that has an affinity for a fluidic sample greater than the affinity of the fluidic sample to a surface from which the sample is obtained.